(19) World Intellectual Property **Organization**

International Bureau



(43) International Publication Date 13 October 2005 (13.10.2005)

PCT

(10) International Publication Number WO 2005/094236 A2

(51) International Patent Classification: Not classified

(21) International Application Number:

PCT/US2004/037045

(22) International Filing Date:

8 November 2004 (08.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/517,918

7 November 2003 (07.11.2003)

- (71) Applicant (for all designated States except US): HENRY M. JACKSON FOUNDATION [US/US]; 1401 Rockville Pike, Suite 600, Rockville, MD 20852 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): VERMA, Ajay [US/US]; 1401 Rockville Pike, Suite 600, Rockville, MD 20852 (US). LU, Huasheng [CN/US]; 1401 Rockville Pike, Suite 600, Rockville, MD 20852 (US). FORBES,

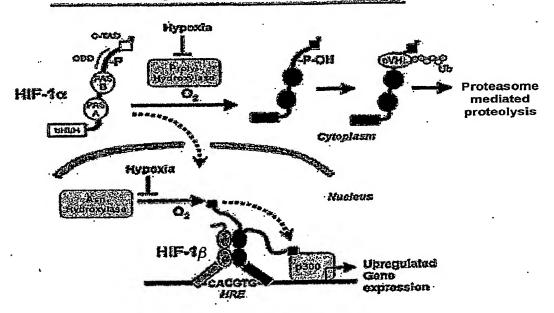
Robert [US/US]; 1401 Rockville Pike, Suite 600, Rockville, MD 20852 (US). DALGARD, Clifton [US/US]; 1401 Rockville Pike, Suite 600, Rockville, MD 20852 (US). MOHYELDIN, Ahmed [US/US]; 1401 Rockville Pike, Suite 600, Rockville, MD 20852 (US).

- (74) Agents: SMYTH, Robert, J. et al.; Morgan, Lewis & Bockius LLP, 1111 Pennsylvania Avenue, NW, Washington, DC 20004 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: ACTIVATION OF HYPOXIA-INDUCIBLE GENE EXPRESSION

HIF-1 Regulation by Hypoxia



(57) Abstract: The present invention relates to the elucidation of specific molecular features of endogenous 2-oxoacid molecules and their derivatives for activating hypoxia-inducible e gene expression by inactivating hypoxia-inducible factor hydroxylating enzymes. This invention identifies agents that can be used to induce tissue vascularization, treat anemias, induce tolerance to stroke and heart attacks, improve tissue healing and improve organ transplantation.

WO 2005/094236 A2



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.